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and whose service has been long and distinguished, may, at the discretion of the President, be retired in the grade of BG. Academy Professors (FA 47*) officers will separate from the Army in the same manner as all other officers.

33-8. Academy Professor Reserve Component officers Active Army functional area

Academy Professor, U.S. Military Academy, is an Active Army FA.

Chapter 34

Operations Research/Systems Analysis Functional Area 49

34-1. Unique features of the Operations Research/Systems Analysis functional area

a. Purpose. The ORSA FA provides uniquely skilled officers—problem solvers—who produce the analysis and logical reasoning necessary to inform and underpin critical decisions by leaders and managers at all levels of DOD. These officers recommend potential solutions for complex strategic, operational, tactical, and business issues. ORSAs are an integral part of the Army and Joint leaderships' decisionmaking processes to organize, man, train, equip, sustain and resource transformation from the current to the Future Force and conduct analysis in support of the Global War on Terrorism and other war fighting operations.

b. Management. FA 49 is managed within the Institutional Support career field (ISCF). The FA 49 Proponent Office resides in the Program Analysis and Evaluation Directorate, Office of the Deputy Chief of Staff, G-8, HQDA.

c. Functions. The FA 49 officer uses knowledge-based tools and advanced technology to add value to leadership decisions in a constantly changing global environment. ORSAs introduce quantitative and qualitative analysis to the military's decisionmaking processes by developing and applying probability models, statistical inference, simulations, optimization and economic models. The ORSA FA encompasses diverse disciplines that include personnel management, doctrine and force development, training management, system testing, system acquisition, decision analysis and resource management, as well as tactical, operational and strategic planning from Unit of Employment through combatant command, and from MACOM through the highest levels of the DOD.

d. Unique features of ORSA work. The FA49 officer integrates military knowledge and experience with the scientific and managerial fields. They serve as subject matter experts in designing forces, allocating resources, analyzing effects, performing course of action and trade-off analysis, and they effectively communicate potential solutions to complex problems to decisionmakers. The ORSA officer will typically serve in one of several general assignments as:

- (1) An analyst on an Army, Joint or defense agency staff.
- (2) An analyst in an organization that provides the analytical underpinning for fielding, equipping, manning, training and operations of military forces. Such organizations include Center for Army Analysis (CAA), TRADOC Analysis Command (TRAC), the Army Test and Evaluation Command (ATEC), branch battle labs and combat development organizations.
- (3) An instructor teaching ORSA and/or mathematics courses at the US Military Academy (USMA), Army Logistics Management College (ALMC), Naval Postgraduate School (NPS), or Air Force Institute of Technology (AFIT).
- (4) A combat analyst on a UEx, UEy, or equivalent Joint headquarters staff.

34-2. Officer characteristics required

The ORSA FA requires officers with the potential to lead at all levels, who understand military operations, and who possess strong Army Values, a Warrior Ethos, and leader attributes and skills described in FM 22-100. The ORSA FA also requires officers who have the technical aptitude necessary to grasp complex, abstract ideas.

a. Unique skills. An FA 49 officer must be able to:

- (1) Formulate solutions to complex problems and design research and study approaches whose conclusions affect positive change.
- (2) Apply technical analytic skills to military issues.
- (3) Infer causal relationships from observed events.
- (4) Conduct and supervise quantitative and qualitative analyses.
- (5) Communicate complex ideas, analysis, and recommendations to decisionmakers at all levels in terms appropriate to the audience.
- (6) Organize workload, assign tasks, and lead and mentor civilian and military subordinates.
- (7) Plan, evaluate, coordinate and integrate actions with other staff elements and functions.
- (8) Conduct research to acquire sufficient knowledge of new or unfamiliar processes or systems requiring assessment.

b. Unique knowledge. The ORSA field requires the application of quantitative and qualitative methods to a wide variety of military problems. Therefore, an ORSA officer should strive to:

- (1) Understand military strategy and operations, program costing, force structure, combat developments, requirements analysis, human resource management, system testing evaluation, modeling, simulation, and wargaming.

(2) Understand the applications of the principles of scientific inquiry, mathematical models and analytical software programs.

(3) Keep pace with technology and methodology developments in the operations research field.

c. *Unique attributes.* FA 49 officers bring scientific approaches to solving complex military problems. An FA 49 officer should strive to:

(1) Attain operational experience to complement analytical skills in order to understand the military context of the analysis.

(2) Work and excel at quick-turn analyses in dynamic high-tempo environments, as well as thorough long-term studies.

(3) Communicate and defend analytic work and results in technical and non-technical terms at all levels of interest, from peers to senior officers and officials.

(4) Identify, understand and solve complex problems.

(5) Work as part of a team with other members who may or may not be analysts.

(6) Be mathematically oriented.

(7) Possess an inquiring mind.

(8) Assist decisionmakers to validate assumptions.

(9) Filter and present data in intuitive and meaningful forms.

34-3. Critical officer developmental assignments

a. *Functional area qualification.* Generally, ORSA officers complete initial FA 49 qualification training prior to performing duties in an FA 49-coded position. This training is completed regardless of the officer's rank. Credit for initial FA 49 qualification training can be obtained by 1 of the following 2 means:

(1) ORSA Military Applications Course I (ORSAMAC I). Most officers receive initial FA49 qualification training by completing ORSAMAC I. This course is a 14-week intense immersion into the basics of Operations Research and Management Science offered at Fort Lee, VA through the Army Logistic Management College (ALMC). Officers will generally attend this course while PCS in route to an initial FA 49 assignment.

(2) Advanced Civil Schooling (ACS). Officers may also receive credit for initial FA49 qualification training via ACS by completing a master's-level graduate degree in a primary or associated discipline listed in table 34-2 and 34-3.

b. *Additional Functional area development.* ORSAs should continue their education beyond the initial ORSAMAC I or ACS qualification. Although not mandatory, the ORSA Technologies and Applications Course (ORSA TAC), offered by the ALMC Systems Engineering Department, provides a follow-on training opportunity for previously qualified ORSA analysts. ORSA TAC exposes ORSAs to emerging technologies and operations research applications related to military problem solving. ALMC also offers a variety of Continuing Education Programs (CEP) dealing with topics such as simulations, data mining, optimization, and other subjects. The operations research and management science societies and organizations provide additional ORSA learning opportunities. The Military Operations Research Society (MORS), Army Operations Research Society (AORS), and the Institute for Operations Research and the Management Sciences (INFORMS) hold recurring symposia that provide opportunities to share studies and analyses within the ORSA community.

c. *Qualification by grade.* The qualification criteria listed below are the minimum requirements for an FA 49 officer to qualify for promotion to the next higher grade.

(1) *Captain.*

(a) *Qualification*— There are no FA qualification requirements for CPTs; however, CPTs have the opportunity to attend initial FA 49 qualification training and serve in FA 49 coded positions.

(b) *Development*— Between the 5th and 6th years of service, officers establish their branch or FA preferences. HRC selects officers to serve in FA 49 assignments based on individual preference, needs of the Army, and undergraduate degree discipline (see table 34-1). Generally, CPTs will be eligible for an ORSA assignment after they successfully complete assignments designed to gain the requisite skills and experiences required by their basic branch. CPTs desiring to serve in an ORSA assignment should contact the HRC FA 49 assignment officer as soon as possible after establishing their preference to allow sufficient time to coordinate initial FA 49 FA qualification training and a follow-on FA 49 assignment. The ORSA CPTs normally serve as members of analytical study teams or as ORSA staff officers, where they apply the skills gained through initial training. Although there are no requirements for FA qualification at the grade of CPT, ORSA training and experience as a CPT may enhance the officer's chances of being career field Designated (CFD) into the Institutional Support career field as an FA 49 officer. CFD occurs at the 4th, 7th, or 10th year of service. Officers career field designated FA 49 will serve primarily as ORSAs in subsequent assignments.

(2) *Major.*

(a) *Qualification*— An officer must complete MEL 4 requirements to be qualified at the grade of MAJ. Additionally, the officer must successfully serve in an FA 49 coded position for 2 years. As an exception, an officer who completes a master's level graduate degree in a primary or associated discipline as listed in tables 34-2 and 34-3 must

serve only 1 year in an FA 49-coded position to be qualified as a MAJ. Officers in cohort year groups affected by full implementation of universal ILE will be required to complete the FA 49 qualification course in addition to completing other ILE requirements for MEL 4 designation, either the ILE Common Core Course and/or the Advanced Operational Warfighting Course (AOWC). The FA 49 qualification course is designed to prepare field grade officers to serve successfully in FA 49 positions through the grade of LTC as senior analysts on Army and Joint staffs.

(b) *Development*— The Career Field Designation Board designates officers into 1 of the 4 OPMS career fields at the 4th, 7th, and 10th year of service. Officers designated into the Institutional Support career field as FA 49s will serve the remainder of their careers in FA 49 assignments with occasional opportunities for assignment to branch/FA generalist (formerly branch immaterial) positions. All FA 49 coded positions are considered FA qualifying. Officers should seek assignments that provide additional breadth to their FA 49 experience. Functional area 49 MAJs serve primarily as ORSA analysts on study teams or as individual action officers with specific analytical areas of responsibility. MAJs should continue their professional development through continuing education and self-development with the ultimate goal of completing a master's level graduate degree in a primary or associated discipline (see tables 34-2 and 34-3). Some senior FA 49 MAJs may be selected for additional advanced civil schooling to earn a doctoral degree. Officers are encouraged to apply for the School of Advanced Military Studies (SAMS), and seek combatant command, Joint Task Force, or other operational-level staff positions where they may refine their battle staff and military operations analysis skills.

(3) *Lieutenant colonel.*

(a) *Qualification*— An officer who has a total of 5 years field grade experience in FA 49 coded positions is considered qualified at the grade of LTC.

(b) *Development*— All FA 49 coded LTC positions are FA qualifying. FA 49 LTCs are generally assigned to supervisory positions or to positions on senior level staffs. LTCs are expected to develop analytic requirements, design studies and establish appropriate methodologies, guide and review the analytic work of subordinates, and apply ORSA techniques to a wide range of military and managerial issues. Some ORSA LTCs fill branch/FA generalist authorizations. FA 49 LTCs should seek a broad range of experiences to provide breadth to their professional competence, including Department-level, Joint Staff, UEy, or other operational level staff positions. It is highly recommended that LTCs complete a master's degree program in a primary or associated discipline (see tables 34-2 and 34-3).

(4) *Colonel.* As senior analysts, COLs serve in assignments that require both technical ORSA and senior leadership skills. They must be able to oversee and direct diverse studies and analytical efforts. To be qualified at the grade of COL an officer must—

(a) Have completed all requirements for FA qualification at the LTC level.

(b) Have obtained a master's level degree in an OR discipline listed in tables 34-2 and 34-3

(c) Serve a minimum of 24 months in an FA 49 COL position. Colonels should have a broad background in analysis throughout the Army, having served in a variety of previous FA 49 field grade assignments. Their military education goal should be completion of resident Senior Service College, the Army War College Distance Education Course, or a MEL 1 fellowship.

Table 34-1
Undergraduate disciplines which support FA 49 designation

Degree Code	Degree note 2
BAL	ORSA (Business)
BAN note 1	Computer Science Management
BAX note 1	Business Administration
BBK note 1	Industrial Management
BBR note 1	Systems Management
BCX note 1	Business Economics
BXX note 1	Business, General
CCF	Engineering, Structural
CCG	Civil Engineering (Structural Dynamics)
CCN	Engineering, Space Facilities
CCX	Civil Engineering
CFA	Aerospace Engineering (Space Travel)
CFB	Physics, Space

Table 34-1
Undergraduate disciplines which support FA 49 designation—Continued

Degree Code	Degree note 2
CFC	Space Systems Engineering
CFD	Space Systems Operations
CFX	Engineering Administration
CGA	Production Design Engineering
CGX	Engineering Administration
CHA	Engineering, Electronic
CHB	Engineering, Radio
CHE	Communications (Engineering)
CHJ	Joint Command, Control and Communications (Engineering)
CHX	Engineering, Electrical
CKB	Engineering, Ordnance
CKH	Engineering, Mechanics
CKX	Mechanical Engineering
CLD	Civil Engineering (Construction)
CLF	Engineering, Nuclear
CLX	Civil Engineering, Nuclear
CSX	Engineering, Physics
CUA	Computer Science (Engineering)
CUC	ORSA (Engineering)
CUD	Computer Engineering (Artificial Intelligence)
CUE	Computer Science
CUG	Software Engineering
CUX	Systems Engineering
CXX	Engineering, General
CYA	Human Factors Engineering
CYX	Engineering, Industrial
CYY	Robotics Engineering
DBC	Astrophysics
DDE	Chemistry, Physical, General
DDX	Chemistry, General
DHA	Statistics
DHB	Mathematics, Cryptanalysis
DHC	Mathematics, Ballistics
DHD	Mathematics, Applied
DHX	Mathematics, General
DLB	Physics, Electricity/Magnetism/Electronics
DLD	Physics, Nuclear
DLE	Physics, Optics/Light
DLK	Applied Science
DLP	Aerodynamics
DLX	Physics, General
EDX	Economics

Table 34-1
Undergraduate disciplines which support FA 49 designation—Continued

Degree Code	Degree note 2
YYY	No Major (USMA) (Historical reference – USMA now grants specific degrees)

Notes:

¹ May require additional mathematics before FA 49 training period.

² Degrees in other Engineering disciplines, Information Systems and Information Technology, Oceanography, Geophysics and other subjects may also support FA 49 designation. The critical factor is a curriculum that provided education in college-level mathematics or other quantitative problem solving courses that will facilitate successful FA 49 training and application.

d. Branch/functional area generalist assignments. These billets, such as ROTC professor of military science and certain faculty and staff positions, while not identified with a specific branch or FA are important to the Army. The frequency that FA 49 officers fill branch/FA generalist positions depends on FA 49 inventory and the needs of the Army.

e. Joint assignments. The ORSA FA positions exist on the Joint Duty Assignment List (JDAL) for MAJs and above. Joint experience, while highly encouraged and desirable, is not required for FA 49 field grade promotions. Officers seeking assignment opportunities within the Office of the Secretary of Defense or the Joint Staff should first successfully complete at least one FA 49 assignment, preferably at DA or MACOM level.

f. Advanced Civil Schooling. FA 49 offers several opportunities for fully funded advanced civil schooling as described in AR 621-1, "Training of Military Personnel at Civilian Institutions." Interested officers should visit the HRC FA 49 assignment officers' Web site (<https://www.perscomonline.army.mil/opfam/fa49.htm>) for more information. FA 49 officers may also seek advanced degrees through the Army's tuition assistance program or cooperative degree programs offered by some analytical organizations.

g. Fellowships. FA 49 MAJs and LTCs may compete for a RAND Arroyo Center Fellowship. RAND is a Federally Funded Research and Development Corporation (FFRDC) headquartered in Santa Monica, California. The RAND fellowship is 12 months long and, upon completion, officers are usually assigned to HQDA, the Joint Staff, or OSD. The RAND fellowship invokes a 3-year Active Duty Service Obligation (ADSO). Interested officers should contact the FA49 HRC assignment officer for more information. All applicants must meet the minimum requirements specified in AR 621-7, "Fellowships and Grants."

34-4. Assignment preferences and precedence.

The professional development of an ORSA officer requires that the officer be exposed to a variety of ORSA-related work, preferably in a number of challenging assignments. The fundamental theories behind ORSA techniques do not change rapidly over time, but the environments and problems to which the tools are applied may vary greatly, as well as the implementation of software tools available. After initial FA 49 training, officers should seek a variety of ORSA assignments in diverse organizations to support their professional development and broaden their experience.

a. Preferences. Functional area 49 has diverse opportunities that allow for numerous career development paths. The goal of FA 49 professional development is to produce operationally competent officers skilled in conducting quantitative and qualitative analysis on a wide variety of military issues. Assignments in this FA should provide the officer exposure to a number of organizations that require FA 49 skills so the officer develops a broader understanding of the application of ORSA techniques throughout the military.

b. Precedence. The sequencing of assignments within the FA is flexible, although in some instances there is assignment precedence. Officers who have not met qualifying requirements at their respective rank are given precedence for assignment to FA 49 authorized positions. An officer's 1st field grade assignment is generally to an FA 49 authorized position or to initial FA 49 graduate education rather than to a branch/FA generalist position. Additionally, an officer's initial assignment should be to a location with multiple ORSA positions and mentors to facilitate growth and development. Some FA 49 authorizations require advanced education. Officers assigned to these positions must complete the required education prior to their assignment. Prior to serving on the Joint Staff or in OSD, officers should plan to serve in at least one FA 49 assignment, preferably at Army Staff level, on a UEy equivalent staff, or on a COCOM or JTF staff.

34-5. Duration of critical officer life cycle assignments

Most FA 49 tour lengths are 24 to 36 months. An officer may be assigned longer to a location with a large FA 49 concentration, such as the National Capital Region. ORSA officers should seek assignment diversity if their tour length in a particular area exceeds 3 years. OCONUS assignments will continue to require specific tour lengths.

a. Key Operations Research/Systems Analysis qualification positions. There are no specific assignments required for FA 49 qualification at any grade. The only FA qualification requirements are outlined in paragraph 34-3 above.

b. Branch/functional area generalist positions. Branch/FA generalists positions within analytic or resource management organizations offer “hard skill” development. Positions in non-analytical organizations may offer more leadership development. Duty in one of these positions should augment or develop skills missing from previous assignments leading to a more broadly skilled officer.

c. Operations Research/Systems Analysis functional area life cycle. Figures 34–1 and 34–2 depict the ORSA FA life cycle with FA qualifying requirements for both active and reserve components. They also identify developmental assignment examples within the FA.

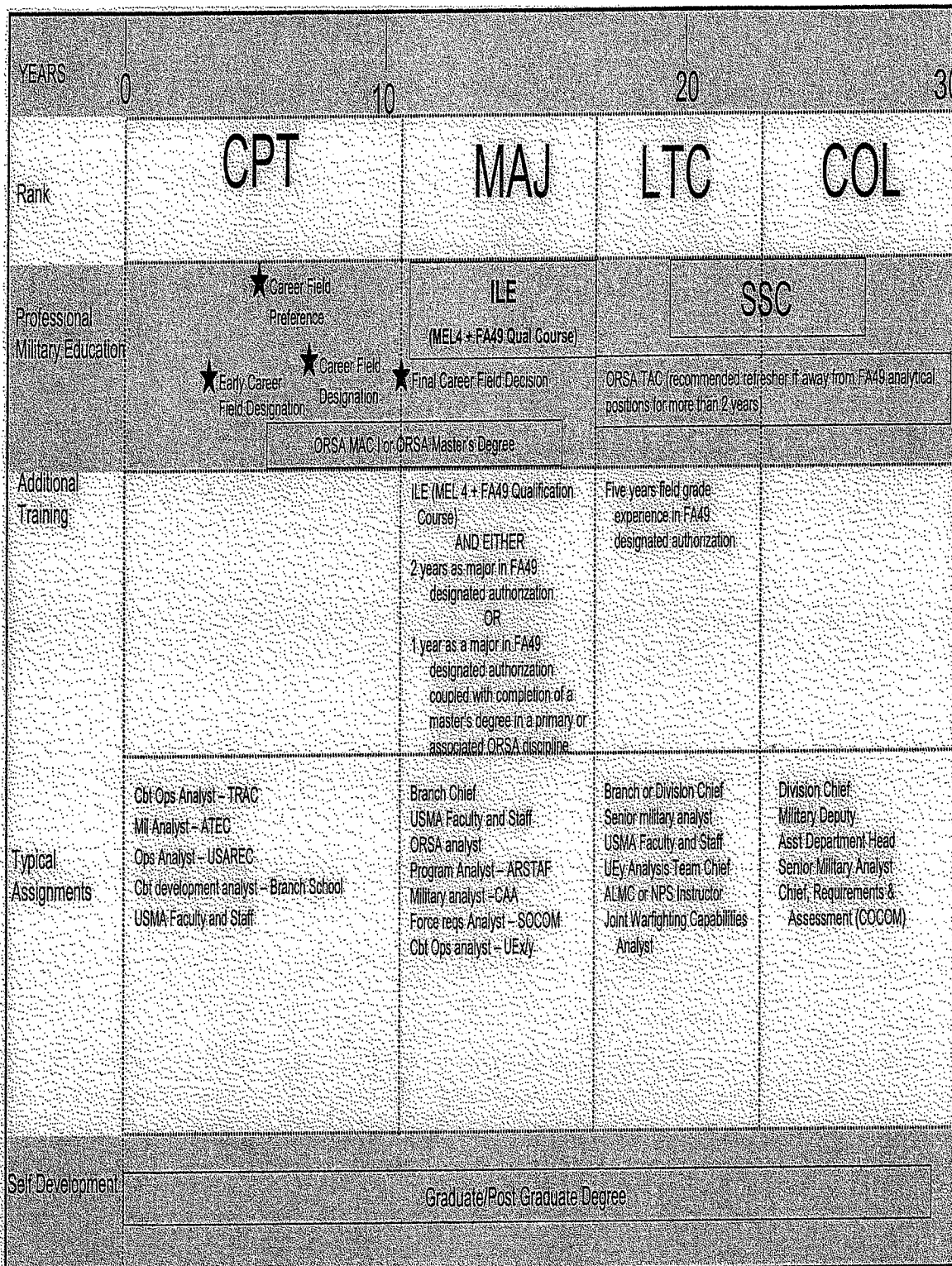


Figure 34-1. Functional area 49 officer life cycle development and utilization

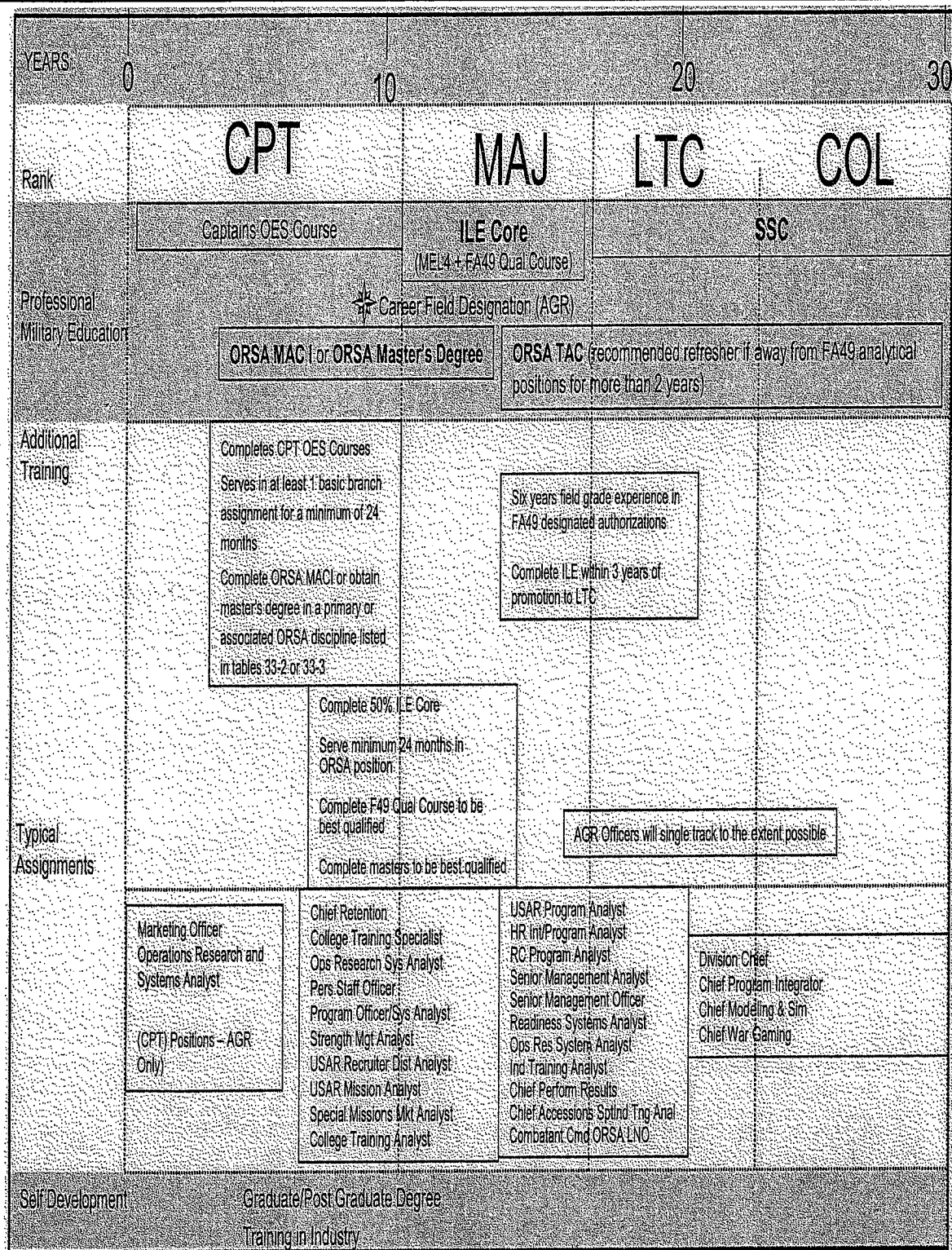


Figure 34-2. Functional area 49 officer life cycle development and utilization (RC)

34-6. Requirements, authorizations, and inventory

a. Goal. Provide a sufficient variety and number of FA 49 authorizations that provide challenging assignments and multiple career paths for professional development while maintaining an inventory that enable officers to be competitive for promotion at rates consistent with Army averages.

b. Officer Personnel Management System and personnel transformation. The number of FA 49 authorizations, by grade, will vary as force structure changes. Officers desiring more information on current authorizations or inventory should contact either the FA 49 personnel proponent or the FA 49 assignments officer at HRC.

34-7. Key officer life cycle initiatives for Operations Research/Systems Analysis

a. Structure. FA 49 officers serve primarily on Army, Joint, or DOD staffs and in their field operating activities, in dedicated analytical organizations, such as the Center for Army Analysis or TRADOC Analysis Center, or as instructors. Approximately 90 percent of FA 49 authorizations are in the Army Generating Force. The remaining FA 49 structure is in the Operating Force from Combatant Command and MACOM-level down to UEx. FA 49s may deploy forward from the Generating Force to support employed forces or support these employed force commanders' analysis requirements through reach-back to CONUS.

b. Acquire. There are 2 programmed points in an officer's career at which they may enter FA 49. The first is the FA preference selection between the officer's 5th and 6th years of service, although this is not necessarily a permanent career field change. Permanent entry into FA 49 is made in conjunction with a career field Designation Board held at the 4th, 7th, and 10th years of service. In addition to the programmed points in a career, an officer may request a transfer to FA 49 at any time. The request for transfer is adjudicated by HRC's internal review mechanisms and approval is based on Army needs.

(1) The criteria for selecting a CPT for FA 49 duty include the needs of the Army, personal preference, qualifications, which may include certifications, type of undergraduate degree, and grade point average. Selection for duty as a FA 49 CPT does not guarantee future designation into the Institutional Support career field as FA 49 (see paragraph 34-3).

(2) The criteria for selecting an officer during the CFD process include officer preference, Army requirements, rater and senior rater OER recommendations, undergraduate degree, and graduate degree, if applicable. Prior training and experience in FA 49 as a CPT does not guarantee ISCF CFD as a FA 49, but may increase the probability of such a designation.

c. Distribute. The Career Management Division (CMD), OPMD, HRC manages FA 49 officer assignments after career field designation into ISCF. Assignments to FA 49 authorized positions or other assignments depend on the needs of the Army, officer preference, and officer qualifications at the time of assignment.

d. Deploy. ORSAs are operationally proficient officers who remain personally and professionally ready to deploy worldwide at all times. Whether assigned to the Operating Force or Generating Force, all FA 49 officers must be prepared to deploy to support missions across the full range of military operations.

e. Sustain. FA 49 officers designated into the ISCF compete for LTC and COL promotions with other ISCF officers. The HRC FA 49 assignment officers monitor officers' careers, and the personnel proponent provides FA policies.

f. Develop. Officers develop FA 49 skills through a series of progressively more challenging assignments and education that provide officer opportunities to apply their skills to a wide range of Army and DOD problems. Additional officer development accrues through service in branch/FA generalist positions. In generalist positions, FA 49 officers are exposed to varied Army organizations and functions, allowing officers opportunities to apply their skills outside normal areas of application. Schools include the standard Army education opportunities— ILE, SAMS, and SSC - as well as ORSA MAC I and ACS to complete a master's or doctoral degree. Officers should complete a master's degree in either a primary or associated discipline (tables 34-2 and 34-3). FA 49 MAJs will generally attend ILE through the 12-week common core course in residence at a Course Location (CL) site. After successful course completion at a CL site, officers are Intermediate Staff College (ISC) graduates and credentialed with Joint Professional Military Education (JPME) 1 qualification. Full ILE credit is awarded when the officer has completed the common core or AOWC and the FA 49 Qualification Course. An alternative is attendance at The Army School System (TASS) classrooms located in CONUS and OCONUS CL sites g. Separate. FA 49 officers separate from the Army in the same manner as other officers.

Table 34-2
Primary Operations Research/Systems Analysis graduate degree disciplines

Degree Code	Degree
BAL	ORSA (Business)
CUC	ORSA (Engineering)
CYX	Engineering, Industrial
CUX	Systems, Engineering
DHD	Mathematics, Applied

Table 34-3
Associated Operations Research/Systems Analysis graduate degree program

Degree Code	Degree
BAN	Computer Science Management
BAX	Business Administration
BBR	Systems Management
BCX	Business Economics
CCF	Engineering, Structural
CCG	Civil Engineering (Structural Dynamics)
CFX	Engineering, Aeronautical
CGA	Production Design Engineering
CHJ	Command, Control, and Communications (Engineering)
CHX	Engineering, Electrical
CKB	Engineering, Ordnance
CKH	Engineering, Mechanics
CKX	Mechanical Engineering
CLF	Engineering, Nuclear
CSX	Engineering, Physics
CUA	Computer Science (Engineering)
CUD	Computer Engineering (Artificial Intelligence)
CUE	Computer Science
DHA	Statistics
DHB	Mathematics, Cryptanalysis
DHC	Mathematics, Ballistics
DHX	Mathematics, General
DLB	Physics, Electricity/Magnetism/Electronics
DLD	Physics, Nuclear
DLP	Aerodynamics
DLX	Physics, General

Notes:

¹ Not all school degrees match these descriptions. Contact the FA 49 Personnel Proponent Office with questions about an educational program's applicability to FA49.

34-8. Operations Research/Systems Analysis Reserve Component officers

a. General. Reserve Component ORSA officers fulfill similar roles and missions as their Active Army counterparts. The range and scope of possible RC assignments is somewhat more limited than those found within the Active Army, due, in part, to differences in force structure and partly because there are no RC organizations comparable to the TRADOC Analysis Center or the Center for Army Analysis. Nevertheless, every attempt will be made to assign RC ORSA officers either in FA49 or branch/FA generalist positions, given available opportunity. Unlike their Active Army counterparts, RC ORSA officers may be expected to revert to basic branch assignments to continue reserve participation and career development (see chap 7 for RC officer development).

b. Assignment opportunities. Reserve Component ORSA assignments are similar to AC assignments with a few exceptions. Generally, USAR entry-level positions are in the accessions system area. U.S. Army Reserve analysts have 2 other areas of activity in which to gain experience toward becoming a well-rounded senior analyst. The 1st is in resourcing and represents all assignments relevant to the PPBE process. The 2nd is in the operations, plans, and doctrine area, which includes operational deployments, COCOM and MACOM assignments, and basic branch/branch immaterial assignments relevant to strategy and doctrine development. Army National Guard analysts are primarily assigned to organizations in the National Capital Region and to ARNG UEx staffs.

(1) *Captain.* U.S. Army Reserve entry-level positions include several CPT billets, most managed under the AGR program. Almost all USAR CPTs serve as marketing officers at USAREC brigade headquarters. They are supervised and mentored by senior civilian analysts, work alongside their AC peers, and complete their tours prepared for personnel, strength management, or accessions system policy assignments at USARC, USAREC, OCAR, RTD, HRC-St. Louis, and HQDA.

(2) *Major and lieutenant colonel.* Most RC ORSA positions are field grade and are governed by the IMA and AGR programs, and most authorizations for senior MAJs and above are in the National Capital Region. Two ARNG ORSA MAJs are authorized for the UEx staff.

(3) *Colonel.* There are few COL positions, and senior analysts should seek branch/FA generalist positions. COLs should maintain broad perspectives and should seek experience throughout the analytical community.

c. Mobilization requirements. Significant numbers of mobilization requirements exist for FA 49 qualified officers. HRC-St. Louis manages pre-trained individual manpower to fill shortfalls in RA, USAR, and ARNG units using officers assigned to the IRR.

d. Qualification and professional development. Reserve Component ORSA officers satisfy FA qualification requirements and become competitive for promotion when they attend military schools and serve in positions of increased responsibility. The following standards must be met to be considered qualified for promotion to the next higher grade unless otherwise noted (length of service in a given position should not be narrowly construed; key is assignment diversity, level of participation, and sufficient time within each assignment to develop competence):

(1) *Captain.*

(a) Successfully complete basic branch CPTs Officer Education System (OES) courses (either AC or RC curriculum).

(b) Serve in at least 1 basic branch position for a minimum of 24 months to gain the requisite skills and experiences required by their basic branch

(c) Complete ORSA MAC I or obtain a master's degree in a primary or associated ORSA discipline listed in table 34-2 or table 34-3.

(d) Serve in at least 1 entry level ORSA position for a minimum of 24 months.

(e) Advanced civil schooling is available to both CPTs and MAJs, but NPS is the only fully funded ACS opportunity, and these opportunities are limited. Officers should develop a plan to obtain a relevant master's degree.

(2) *Major.*

(a) Best-qualified officers will also complete the FA 49 Qualification Course.

(b) Serve a minimum of 24 months in at least one ORSA position. Best-qualified officers will serve 36 or more months in ORSA positions.

(c) Continue development through CEP or various civilian education venues with the ultimate goal of obtaining a master's degree in a primary or associated ORSA discipline listed in table 34-2 or table 34-3. A master's degree is not a requirement for promotion to LTC, but is highly encouraged. Some assignments, including HQDA staff and OSD, may require a master's degree in an ORSA discipline.

(d) If a second ORSA assignment is not available, serve a minimum of 36 months in a branch/FA generalist or basic branch position. Active Guard Reserve officers will be single tracked FA 49 to the maximum extent possible.

(3) *Lieutenant colonel.*

(a) Successfully complete ILE within 3 years after promotion to LTC.

(b) Serve a minimum of 6 years at the field grade level in an ORSA position. Time spent obtaining a master's degree listed in table 34-2 or table 34-3 as a full time duty may be included as part of the 6-year minimum. Civilian ORSA service such as time spent as a GS 1515 series employee will be considered towards meeting the 6-year minimum as well. Civilian OR service must be annotated on the biography submitted to promotion boards.

(c) If a second ORSA assignment is not available, seek an assignment in a branch/FA generalist or basic branch position (AGR officers will be single tracked FA 49 to the maximum extent possible).

(d) Be selected for Senior Service College (MEL 1).

(4) *Colonel.*

(a) Serve in at least 1 ORSA position for a minimum of 24 months.

(b) As senior analysts, COLs serve in assignments that require both technical and managerial skills. They should be able to oversee and direct diverse studies and analytical efforts. COLs should have a broad background in analysis throughout the Army, having served in a variety of different FA 49 authorizations in previous field grade assignments.

(c) If a second ORSA assignment is not available, seek an assignment in a branch/FA generalist or basic branch position.

e. *Life cycle development model.* The RC life cycle development model for FA 49 officers is shown at figure 34-2.

f. *Civilian acquired skills.* Many RC officers possess education and/or work experience through their civilian profession comparable to that of ORSA officers but are not designated FA 49. These officers are strongly encouraged to seek FA 49 designation through HRC-St. Louis. Civilian ORSA-related work experience will be considered for developmental equivalency when qualifying these officers for positions of increased responsibility.

g. *Reserve Component training participation and credit.* (See chapter 7.)

Chapter 35

Force Management Functional Area

35-1. Unique features of Force Management functional area

a. *Unique purpose Force Management functional area.* The Force Management FA provides distinctively skilled officers who lead and implement change and are integrated in all echelons of command. Force management officers are trained and educated in every aspect of the Force Management process to create a mission ready campaign quality force with Joint and expeditionary capabilities for the combatant commanders. The Force Management FA is involved in the organization, integration, decisionmaking and execution of the full spectrum of activities encompassing requirements definition, force structuring, combat developments, materiel developments, training developments, as well as analyzing and resourcing at the tactical, operational, and strategic levels of the Army.

b. *Unique functions performed by Force Management functional area.* Force management officers, also known as FA 50 officers, are the Army's experts on the broad and complex subject of change management. They are critical to accomplishing the Army's requirements under 10 USC. Functional area 50s are highly educated and serve as the subject matter experts on Force Management. They are trusted advisors at every level of command and provide expertise in design, development, and funding strategies of the Army to support Defense Strategic Planning documents. Force management officers are involved in determining warfighting requirements, designing operational forces and institutional Army structures, identifying and allocating authorized resources, and analyzing 2nd and 3rd order effects to provide a mission ready force. The Force Management officer manages the integration and synchronization of Army requirements across the Doctrine, Organizations, Training, Materiel, Leader development & education, Personnel and Facilities (DOTMLPF) domains. These domains are managed through the Army's life cycle process from conceptual development to the eventual deactivation or obsolescence. Functional area 50 is managed within the Institutional Support career field (ISCF). The FA 50 Proponency Office is located within the Office of Deputy Chief of Staff, G-8, Force Development Directorate, Army Pentagon.

c. *Unique features of work in Force Management functional area.* The institutional force creates, provides and sustains the Army's contribution to the land component of the combatant commander's Joint/multinational force. The Force Management FA directly supports 10 USC responsibilities of DA by developing the 4 core capabilities of the force required to support the current and Future Force. These core capabilities are—

(1) Develop the force.

(2) Generate and project the force.

(3) Sustain the force.

(4) Direct and resource the force. Functional area 50 provides the Army with a highly trained cadre of officers who specialize in leading and integrating change and Force Management (the inter-relationship of Force Management, force development, and force integration). The expertise held by Force Management officers is essential to building the core capabilities of the Army. They possess in-depth FA and operational expertise gained through both formal schooling and demanding repetitive Force Management assignments and at echelons. The work in this FA is performed across Army, Joint, and DOD level organizations and staffs. At times, the Force Management officer is required to interface with interagency organizations, officials from other Services and the DOD staff. The demands of influencing change management require officers to operate routinely within and outside institutional paradigms that exist today. Change management work is demanding, challenging, and rewarding. It provides the officer an opportunity to develop the Army of the future. A Force Management officer is involved in—